## THE WEATHER OF 1942 IN THE UNITED STATES

By J. L. BALDWIN

[Weather Bureau, Washington, February 1943]

The mean temperature for the year 1942, derived by weighting the averages for the varying areas of the several States, was exactly normal, being 53.2°, or the same as the average for the 1886 to 1942 period, during which time the highest mean annual temperature was 55.6° in 1921 and the lowest, 51.8° in 1917. With the exception of +1.3° in North Dakota, all the State annual averages for the past year were within 1° of their respective annual normals. The greatest negative departures were  $-1.0^{\circ}$  for Idaho, followed by  $-0.8^{\circ}$  for Louisiana. In respect to area, the annual mean temperatures were generally somewhat below normal in the Gulf States, Rocky Mountains, and Pacific States, except in Nevada and Washington, and practically normal to above elsewhere. The greatest plus departures were in the Northern Plains.

Maximum temperatures of over 100° were not recorded until April, with 104° at Laredo, Tex. on the 30th. The last month during the year with over 100° was October, with 107° at El Centro, Calif. A temperature of 99° was reported from Laredo, Tex. as late as November 25. Maximum temperatures of 100° and above were reported from every section, except New York and New England. Readings of 105° to 111° were quite general in the Great Plains a few times during the summer, but this is not unusual. The extreme highest temperature for 1942 was 126° at Cow Creek, Calif., on July 24. The highest ever recorded in the United States was 134° at Greenland

Ranch, Death Valley, Calif., July 10, 1913.

Subzero temperatures drifted southeastward into the Cotton Belt as the year opened, with  $-15^{\circ}$  at Miami, Tex. on January 5, and  $-2^{\circ}$  at Hollywood, Ga., on the 11th. Below-zero temperatures were reported from North Dakota and the higher elevations of the West as late as April. They first began to reappear in the more northern Plains States and Rocky Mountains by the last week of October, reaching Kansas by the 29th of November. During December,  $-1^{\circ}$  occurred at Celina, Tenn. on the 4th, and -4° at Mount Mitchell, N. C., on the 2d. The lowest temperature for the year was  $-52^{\circ}$  at Taylor Park, Colo., on February 18. The lowest ever recorded in the United States was -66° at Riverside Ranger Station, Yellowstone Park, Wyo., on February 9, 1933.

Table 1 and the chart of annual temperature departures

supplement these general remarks.

The first half of January was persistently cold, with subzero temperatures prevailing everywhere from the Rocky Mountains eastward to the Appalachians and reaching as far south as central Virginia, western North Carolina, and central Tennessee. A hard freeze penetrated the deep South with minimum temperatures as low as 16° in northern Florida. The last half was persistently warm in most sections, with temperatures averaging from 20° to almost 30° above normal in northwestern areas, however, subnormal temperatures continued in the Great Basin of the West. The monthly averages for about 70 percent of the States were below normal for January.

The relatively coldest month was February as shown by table 1. It is noted that all but six of the States had negative departures. For the month the average mean temperatures were above normal from the Dakotas to Wisconsin and in Washington and below normal elsewhere, with extreme departures of  $-6.1^{\circ}$  in Colorado,

 $-5.6^{\circ}$  in Utah, and  $-5.5^{\circ}$  in South Carolina. The first half of the month was mild to abnormally warm for the season, except slightly below normal in the more eastern

States; the latter half was decidedly cold.

The mean monthly temperatures for March were near normal to slightly below in the Cotton Belt, decidedly above in the Northern States east of the Rocky Mountains, mostly below normal in the Rocky Mountain region and about normal in the Pacific States. The averages for April were generally above normal in all sections. During May they were about normal over the southern half of the country, considerably above in the Northeast, and about 3° to 5° below normal in the Northwest and Great Basin. June temperatures averaged nearly normal in most sections, while July averages were moderately above normal, except below in most of southern Texas.

The monthly mean temperatures for August show a

widespread uniformity in respect to normal, ranging from near normal to slightly above. The first half of September was rather uniformly warm, but the latter part brought abnormally cold weather to nearly all sections east of the Rockies. Record-breaking low temperatures were experienced in a considerable north-central area, with unprecedented early snowfall. Average temperatures for the months of October and November were somewhat above normal in nearly all sections. Over 85 percent of the State averages for October had plus departures, but +3.0° for Nevada and +2.5° for North Dakota were the only State departures exceeding +2.0°

The relatively warmest month in respect to its normal was November, which also had over 85 percent of its averages above normal. The mean State temperatures were 3° or more above normal in a triangular area from New Mexico eastward to Alabama and thence northward over Kentucky and Missouri, with the greatest mean departure being +3.8° for Tennessee. During December temperatures were abnormally high from the central Great Plains westward, while east of this region the month was colder than normal in the central and northern States and somewhat above normal in the Southern States south

of North Carolina and Tennessee.

The average annual precipitation for the country as a whole, based on weighted averages, was 31.10 inches for the past year, or 7 percent above the average for the 1886 to 1942 period, during which time the wettest year was 32.74 inches in 1915 and the driest 24.65 inches in 1910.

Figure 1 gives the State percentages of normal precipitation for the year; table 2 these percentages for the months and the year; and table 3, the monthly and annual amounts. The percentages of normal are also shown for

first order stations by chart 2.

On an annual basis, the wettest State was Louisiana, with 56.84 inches and the driest was Nevada, with 7.60 inches. By State averages more than 50 inches of rain occurred in Alabama, Florida, Georgia, Louisiana, North Carolina, and Tennessee. On a departure basis, December was probably the wettest month, with 31 States having above normal precipitation. During this month the departures averaged 27 percent above normal. January was the relatively driest month. All States reported deficiencies for January, except Florida and Georgia, and the average monthly departure was 36 percent below normal. During April the totals were from 2 to over 3 times the State normals in Arizona, California, Colorado, New Mexico, and Oklahoma, while Arizona had traces during May and June.

The greatest monthly amount reported at any station was 35.09 inches at Illahe, Oreg., in December, with 34.99 inches in the same State at Valsetz for November. Each month had some station without rain. California had 178 stations without rain in August, and Arizona reported none from 115 stations during May and June. It might

be stated that in Hawaii during April of the past year, 111.75 inches of rain fell at Puohakamoe No. 2 and none at Waiopai Ranch.

Percentages of normal precipitation during the growing season, April 1 to September 30, 1942, are shown by

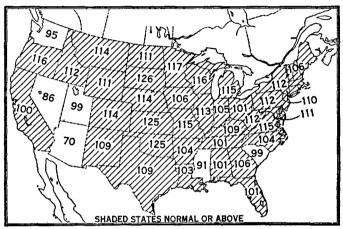


FIGURE 1.—Percentage of normal precipitation, 1942.

States in figure 2. During this season the total amounts were somewhat below normal in Nevada, Arizona, and Utah, and near normal in the Southeast, and far Northeast; elsewhere, they were above normal, with substantial excesses in the western Cotton Belt, Great Plains, western Lake region and especially in California. The active growing season, May to August, had a country-wide average of 12.12 inches, making it one of the wettest seasons of record. The weather during the past year was unusually favorable for crops on the whole, although there were a few adverse conditions, such as too much rain in northern States during part of the season, deficient moisture with an early summer drought in the East and south-central States, and unfavorably early fall frost in some sections.

During January, precipitation was decidedly scanty in most sections, especially between the Rocky Mountains and Mississippi River, and was above normal in the extreme Southeast and in some northeastern and more western areas. February precipitation was heavy in Florida and the Gulf coast sections and also above normal from the Ohio Valley to the Rocky Mountains. It was below normal in a belt from New Mexico northeastward to the middle and north Atlantic coasts.

In March, amounts were heavy in a large southeastern area, in the Atlantic States, and in a considerable north-

central area, being the wettest March in some localities; while in the Southwest it was decidedly dry. During April, abnormally heavy rains occurred in the Southwest and one of the driest Aprils of record prevailed in the East. It was very dry southward over northern Florida, but heavy rains occurred in extreme southern Florida, with Miami reporting a maximum April rainfall of 13.62 inches.

The drought situation was mostly relieved in the Atlantic States during May and most of the northern portion of the country had above normal amounts, while a large portion of the Southwest had scanty rainfall. June was characterized by extreme dryness in the far Southwest and abnormally heavy rains in much of the interior of the country. Marked contrasts prevailed locally during July. For instance, Cairo, Ill., reported 20 percent of normal, while nearby St. Louis, Mo., had the wettest July since 1875; also, Abilene, Tex., and Vicksburg, Miss., had the second driest, while San Antonio and Corpus Christi, Tex., had the wettest July of record. In general, during August the southern half of the country had above normal precipitation, except the Southeast, and the northern half below normal, except in a few limited areas. September precipitation was above normal from southeastern Idaho and the eastern Rocky Mountain region eastward almost to the Atlantic coast, while it was decidedly below normal west of this region, and somewhat below in the immediate central and lower Mississippi Valley.

October precipitation was rather spotted, being mostly below normal west of the Rocky Mountains, in the more northern interior States, and in the Southeast, and twice

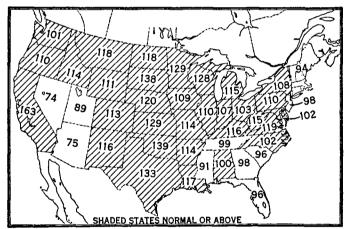


FIGURE 2.—Percentage of normal precipitation, April 1-September 30, 1942.

the normal from Wyoming to central Texas and in the Middle Atlantic States. November was abnormally wet in a large northwestern area, including northern California and also from the central Mississippi Valley and Lake region eastward, while it was abnormally dry in the South and especially in the Southwest. Precipitation during December was below normal in southern Texas and from southern California northeastward over the northern Rocky Mountains and northern Plains States, and above normal in most sections elsewhere.

DECEMBER 1942

Table 1.—Monthly and annual temperature departures from normal for the year 1942

	Santom . Novem December													
	January	February	March	April	Мау	June	July	August	Septem- ber	October	Novem- ber	Decem- ber	Annual	
1. Alabama. 2. Arizona. 3. Arkansas. 4. California. 5. Colorado.	-3.2 +.7 -3.1 +1.1 -1.8	-4.0 -4.6 -2.3 -2.6 -6.1	-0.5 -3.6 +.4 -1.2 -3.2	+1.1 $-1.9$ $+1.3$ $-2.1$ $+2.6$	0.0 -2.3 -1.1 -2.9 4	+0.4 -1.6 1 -1.4 6	+0.7 +1.2 +.6 +.2 +.8	-1.1 7 -1.3 +.2	-2.3 +.1 -3.1 7 4	+1.2 1 .0 +1.0 +.7	+3.1 +2.8 +3.2 3 +2.4	+1.8 +3.0 -0.2 +0.8 +3.0	-0. 2 -0. 6 -0. 5 -0. 7 -0. 2	
6. Florida 7. Georgia 8. Idaĥo 9. Illinois 10. Indiana	$ \begin{array}{r} -2.1 \\ -1.4 \\ -4.1 \\ +.2 \\4 \end{array} $	-5.4 -4.8 -4.2 -1.2 -2.2	$ \begin{array}{r} -2.2 \\ -1.2 \\ -3.1 \\ +3.3 \\ +2.7 \end{array} $	9 +.7 +1.4 +3.7 +4.3	$ \begin{array}{r}3 \\3 \\ -3.5 \\ +.2 \\ +1.2 \end{array} $	+.3 +.4 -3.5 +.3 +.8	+1.9 +1.2 +1.0 +.3 +.5	$egin{array}{c} +.3 \ -1.0 \ +.6 \ -1.1 \6 \ \end{array}$	$\begin{array}{c} +.6 \\ -1.2 \\ +1.4 \\ -2.2 \\ -2.1 \end{array}$	.0 .0 +1.2 +.4 +1.0	+2. 2 +2. 2 -1. 0 +2. 7 +2. 8	+2.5 +0.3 +1.8 -4.0 -4.2	-0.3 -0.4 -1.0 +0.2 +0.3	
11. Iowa. 12. Kansas 13. Kentucky. 14. Louisiana. 15. Maryland-Delaware	+3.0 +.5 -3.0 -3.8 9	+1.1 7 -2.9 -3.6 -1.2	+3.7 +1.0 +2.1 -2.3 +2.0	$   \begin{array}{r}     +6.0 \\     +3.3 \\     +2.0 \\     \cdot 0 \\     +3.4   \end{array} $	9 8 -0 4 +3.6	+.1 -1.1 +.8 -1.6 +1.4	4 +.8 +1.0 .0 +.8	-1.0 9 0 7	-2.5 -3.2 -2.9 -2.6 +.5	+1.4 +.5 +.3 +.4 +1.6	+2.5 +2.2 +3.4 +2.9 +2.0	-3.9 8 -1.6 +0.8 -3.1	+0.8 +0.1 -0.1 -0.8 +0.8	
16. Michigan 17. Minnesota 18. Mississippi 19. Missouri 20. Montana	+.6 +8.2 -3.8 +.4 1	5 +3.9 -3.9 1 -2.1	+3.8 +6.5 9 +1.8 +1.4	+6.2 +6.0 +.9 +3.8 +2.8	+.7 -2.5 5 7 -2.8	+.3 -1.7 +.4 3 -3.8	-1.2 -2.1 +.9 +.7 3	+.1 .0 9 -1.4 +.2	-2.3 -4.3 -2.3 -2.0 +.8	+.5 +.9 +1.0 +.3 +1.6	+.2 +.3 +3.6 +3.5 -1.3	-3.6 -4.5 +0.7 -1.6 +1.8	+0.4 $+0.9$ $-0.4$ $+0.0$	
21. Nebraska 22. Nevada 23. New England 24. New Jersey 25. New Mexico	+1.7 +.4 9 -2.0 +.5	-1. 2 -2. 4 -1. 0 9 -3. 2	+1.0 -1.4 +4.5 +3.0 -3.3	+4.4 +.8 +2.6 +3.5 +.1	-2.1 -2.3 +3.3 +3.9 7	-1.2 1 +.9 +.8 .0	+1.0 +3.4 6 +.8 +3.2	+.5 +2.1 +.6 7 4	-3.3 +1.7 +.5 +.3 -1.2	+1.0 +3.0 +1.3 +1.5 6	$\begin{array}{c} +1.8 \\ +2.0 \\ \cdot 0 \\ +1.2 \\ +3.4 \end{array}$	+.9 +5.5 -4.4 -3.8 +4.1	+0.4 +1.0 +0.6 +0.6 +0.2	
26. New York 27. North Carolina 28. North Dakota 29. Ohto 30. Oklahoma	7 -1.8 +11.8 +.1 -1.2	-1.9 -4.8 +4.4 -2.4 2	+4.4 +1.1 +6.1 +3.4 1	+4.6 +2.3 +3.4 +4.6 +1.9	+3.6 +1.1 -3.6 +1.9 9	$\begin{array}{c} +1.2 \\ +1.6 \\ -2.9 \\ +1.6 \\2 \end{array}$	1 +1.6 -1.9 +1.0 3	7 2 4 -1.6	-0 +.4 -2.8 -1.1 -3.1	+2.0 +.9 +2.5 +1.7 9	+.8 +1.9 +1.3 +2.1 +3.1	-4.1 -1.7 -2.4 -4.0 +0.8	+0.8 +0.2 +1.3 +0.7 -0.2	
31. Oregon  32. Pennsylvania  33. South Carolina  34. South Dakota  35. Tennessee	-3.6 -1.7 -1.0 +6.7 -3.0	$ \begin{array}{r} -1.3 \\ -2.6 \\ -5.5 \\ +2.1 \\ -3.8 \end{array} $	-1.4 +2.5 +.3 +2.7 +1.2	+.6 +4.2 +1.9 +4.9 +2.1	-2.7 +2.8 +.1 -3.8 +.8	-2.8 +.9 +1.2 -2.3 +1.6	+.9 +.4 +1.7 -1.5 +2.1	+.8 8 7 +.3 -1.0	+1.4 5 +.6 -4.1 -1.9	+1.8 +1.3 +1.0 +1.0 +.8	4 +.4 +2.4 +1.7 +3.8	+2.6 -4.0 -1.1 -0.7 -0.8	$     \begin{array}{r}       -0.3 \\       +0.2 \\       +0.1 \\       +0.6 \\       +0.2     \end{array} $	
36. Texas 37. Utah 38. Virginia 39. Washington 40. West Virginia	-2.8 -2.2 -1.7 -1.7 -1.9	-2.2 -5.6 -2.8 +2.0 -4.0	-1.8 -4.8 +1.5 1 +1.7	2 +.8 +3.3 +1.5 +2.9	4 -3.4 +2.8 -1.1 +1.8	+. 2 -1. 5 +1. 5 -1. 9 +1. 7	-1.4 +1.5 +1.7 +1.8 +.7	-1.1 +.3 7 +2.8 7	-3.4 +.2 +.1 +2.4 -1.3	8 +1.8 +1.2 +1.6 +1.1	+3.1 +.9 +2.1 -2.1 +1.5	+2.0 +4.1 -1.6 +0.9 -3.2	$ \begin{array}{r} -0.7 \\ -0.7 \\ +0.6 \\ +0.5 \\ 0.0 \end{array} $	
41. Wisconsin 42. Wyoming	+3.1 -2.8	+1.7 -5.2	+4.5 -1.4	+6.3 +4.0	-1.1 -2.6	4 -3. 1	-1.2 +1.4	+1.2	-3.1 2	+.5 +1.3	+. 4 +. 9	-4.2 +3.6	+0.5 -0.2	

Table 2.—Percentage of normal precipitation 1942

	January	February	March	April	May	June	July	August	Septem- ber	October	Novem- ber	Decem- ber	Annual			January	February	March	April	Мау	June	July	August	Septem- ber	October	Novem- ber	Decem- ber	Annual
1. Alabama 2. Arizona 3. Arkansas 4. California 5. Colorado	68 50 72 86 87	88 81 85 88 116	125 47 84 54 91	40 204 175 234 244	87 0 80 175 49	0	64	82 167	125 64 105 15 115	73 113 106 49 206	55 12 97 164 71	166 84 118 90 99	101 70 104 100 114	23 24 25	Nevada	82 85 82 42			57 38 345				175 140	97 118 142	95 155	3	95 141 127 174	109
6. Florida	137 104 62 62 56	146 92 92	195 165 46	92 38 106 76	84 123 196 104	153 113 119 140	l i	77 109 37 106	101 125 53		34 64 210 192		101 106 112 113 105	27 28	New York North Carolina North Dakota Obio Oklahoma	67 67 18 48 51	90 73 105 102	142 130 244 95 61	77 30 138 84 250	118 128 137 109 49	87 103 90 108 180	105 53	122 158 102 159	132 114 107 160	102 141 45 82 135	66 31 137 81	141 106 138 163	111 101
11. Iowa 12. Kansas 13. Kentucky 14. Louisiana 15. Maryland-Delaware	70 54 65 56	107 117	114 101 95	38 177 75	117 66 92 102	137 166		89 146 175 119 167	1	1	107 58 141 30			32 33 34	Oregon Pennsylvania South Carolina South Dakota Tennessee	68 56 74 11 80	101 90 92 93 92	120 187 177 94	92 64 43 143 59	190 146 125 209 77	129 93 104 129 89	100 120 104 102 109	169	139 94	59 68 111	213 116 70 61 77	175 164 122 57 169	112
16. Michigan 17. Minnesota 18. Mississippi 19. Missouri 20. Montana	90 24 52 67 61	57 39 87 145	167 202 111	53 96	135 175	. 1		101 147 137 111	- 1	l	107 43 39 160	148 116 135 187 107		37 38 39	Texas Utah Virginia Washington West Virginia	35 81 77 52 55	70 102 58 75 69	57 94 114 63 95	187 138 20 79 53	73 112 127 149 113	109 47 126 164 117	92	179 67 193 42 176	137 54 136 15 129	136 88 207 95 142	53 202 68 151 138	90 98 133 104 169	115
21. Nebraska		ı	155	i	129	- 1		i	194			100	114	41 42	. Wisconsin	49 60	42 82	126 57	69 150	180 147	118 91	124 79	80 60	177 105	77 166	105 241	139 89	116 111

Table 3.—Monthly and annual precipitation (inches), 1942

	Januar	Februar	March	April	May	June	July	August	Septem-	October	Novem- ber	Decem	Annual			January	February	March	April	May	June	July	August	Septem	October	Novem ber	Decem- ber	Annual
2. Arizona 0.6 3. Arkansas 3.3 4. California 4., 5. Colorado 0.6 6. Florida 3.7 7. Georgia 4.8 8. Idaho 1.9 9. Illinois 1.4	. 62 1 . 20 2 . 17 3 . 69 1 . 79 4 . 46 4 . 38 1 . 47 3	1. 08 2. 97 3. 80 1. 13 4. 55 4. 53 1. 60 3. 21	0. 48 3. 95 1. 98 1. 17 6. 13 8. 10 0. 82 2. 91	1. 16 8. 42 3. 98 4. 35 2. 63 1. 38 1. 52 2. 62	T 3.89 1.75 0.90 3.37 4.29 3.14 4.19	T 4. 54 0. 06 2. 07 10.32 5. 05 1. 60 5. 46	1. 33 1. 39 0. 01 1. 41 4. 85 4. 79 0. 54 4. 89	1. 86 5. 96 0. 16 1. 5 <b>9</b> 5. 39 5. 76 0. 22 3. 56	4. 08 0. 82 3. 52 0. 07 1. 58 6. 75 4. 61 0. 54 3. 05	0. 93 3. 19 0. 60 2. 33 1. 20 2. 08 1. 32 1. 91	0. 11 3. 83 3. 78 0. 55 0. 74 1. 68 4. 09 5. 12	1. 08 4. 87 3. 64 0. 88 3. 45 6. 29 3. 35 2. 77	9. 47 49. 73 24. 00 18. 65 53. 17 53. 02 20. 12 41. 16	23. 24. 25. 26. 27. 28. 29.	Nevada	3. 03 2. 98 0. 25 2. 01 2. 53 0. 09 1. 48	2. 68 2. 69 0. 54 2. 42 3. 63 0. 36 2. 66	0. 61 6. 04 5. 73 0. 48 4. 36 5. 44 1. 83 3. 30 1. 29	1. 94 1. 39 2. 97 2. 32 1. 10 1. 96 2. 70	2. 98 2. 41 0. 27 4. 03 5. 21 3. 03 3. 96	4. 54 3. 11 0. 84 3. 00 4. 84 3. 12 4. 19	4. 32 7. 30 1. 51 5. 04 5. 14 2. 43 3. 98	2. 83 8. 24 3. 34 3. 53 6. 89 3. 09 3. 48	3, 68 4, 55 2, 46 4, 98 5, 18 1, 67 3, 18	3. 12 3. 43 1. 72 3. 32 4. 61 0. 46 2. 03	4. 80 4. 14 0. 02 3. 75 1. 76 0. 18 3. 72	4. 74 4. 53 1. 22 5. 43 5. 36 0. 53 3. 75	44. 70 50. 50 15. 62 44. 19 51. 69 18. 75 38. 43
11. Iowa 0. 12. Kansas 0. 13. Kentucky 2. 14. Louisiana 2. 15. Maryland-Delaware 2. 16. Michigan 1. 17. Minnesota 0. 18. Mississippi 2. 19. Missouri 1.	. 76 . 37 . 93 . 73 . 47 . 82 . 19 . 70	1. 15 1. 17 2. 62 5. 27 2. 13 1. 00 0. 30 4. 27 3. 00	1. 96 1. 45 4. 44 5. 48 5. 89 3. 44 2. 34 6. 31 2. 05	1, 06 4, 47 3, 01 5, 10 1, 10 1, 26 2, 06 3, 52 3, 83	4. 70 2. 53 3. 62 4. 56 3. 88 4. 32 5. 52 3. 61 5. 31	5. 93 6. 49 5. 54 8. 40 3. 91 3. 45 3. 60 4. 42 7. 70	4. 89 2. 25 4. 71 4. 63 4. 69 3. 46 3. 35 2. 87 2. 85	3. 17 4. 57 6. 56 6. 15 7. 34 2. 80 4. 67 5. 71 4. 24	2.71 4.13 4.48 3.12 5.09 2.99 4.69 4.55 3.38 4.19 1.13	1. 53 2. 80 2. 81 3. 10 6. 60 2. 99 1. 08 2. 91 2. 97	1. 76 0. 75 4. 88 1. 17 2. 40 2. 68 0. 49 1. 40 4. 30	1. 59 1. 82 5. 34 5. 16 3. 78 3. 06 0. 93 7. 12 4. 01	32. 63 33. 15 49. 58 56. 84 47. 18 34. 97 29. 08 48. 22 46. 11	32. 33. 34. 35. 36. 37. 38. 39. 40.	Oregon Pennsylvania South Carolina South Dakota Tennessee  Texas Utah Virginia Washington West Virginia Wisconsin	1. 81 2. 66 0. 06 3. 87 0. 66 0. 98 2. 54 2. 56 2. 02	2. 64 3. 90 0. 53 4. 02 1. 27 1. 30 1. 82 2. 77 2. 22	1. 25 4. 20 7. 17 1. 93 5. 10 1. 15 1. 30 4. 21 2. 14 3. 64 2. 28	2. 21 1. 40 2. 95 2. 60 5. 50 1. 60 0. 66 1. 90 1. 86	5. 62 4. 46 5. 86 3. 20 2. 65 1. 28 4. 97 2. 94 4. 61	3. 83 5. 00 4. 27 3. 73 3. 39 0. 27 5. 29 2. 86 5. 17	5. 15 6. 06 2. 52 4. 84 3. 53 0. 75 4. 28 1. 28 4. 44	4. 50 5. 68 2. 08 6. 88 4. 32 0. 66 8. 71 0. 33 7. 22	4, 37 3, 36 2, 05 2, 82 4, 06 0, 55 4, 39 0, 26 3, 97	4. 50 1. 72 0. 76 3. 04 3. 46 0. 94 6. 34 2. 82 4. 04	3. 35 1. 64 0. 38 2. 74 1. 20 1. 82 1. 71 7. 57 3. 81	5, 06 4, 29 0, 32 7, 64 2, 04 1, 10 4, 04 5, 91 5, 42	47. 24 47. 34 23. 71 50. 48 33. 23 12. 55 48. 96 33. 34 48. 42

## METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR DECEMBER 1942

[Climate and Crop Weather Division, J. B. KINCER, in charge]

## AEROLOGICAL OBSERVATIONS

NOTICE.—Effective with this issue (December 1942) the publication of table 1 (RAOB summaries) has been discontinued indefinitely.—EDITOR

Table 2.—Free-air resultant winds based on pilot-balloon observations made near 5 p. m. (75th meridian time) during December 1942. Directions given in degrees from North ( $N=360^{\circ}$ ,  $E=90^{\circ}$ ,  $S=180^{\circ}$ ,  $W=270^{\circ}$ ). Velocities in meters per second

	Abilene, Tex. que, N. Me (538 m.) (1,630 m.)					Mex.		tlan Ga. 299 n	. ′	]	illin Mon ,095 1	t.	N	sma: I. Da 512 n	ık.	1	Bois Idah 870 n	10	vi.	rowi lle, T (7 m	ex.	[	Buffa N. Y 220 n	Y. ton, Vt. ton, S. C. nati, Ohio (152 m.)								enve Colo 627 1			Pase Tex. 196 r				
Altitude (meters) m.s.l.	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	26 26 24 22 19 17 15	228 260 265 270 274 280 279 281 284 283	1.5 2.9 7.0 8.7 9.6 11.2 14.0 18.0 19.3 21.3 26.5 34.0	31 31 31 26 22 22 18	294 298	3.0 5.0 7.6 10.4	22 20 19 18 17 15 14 13 10	289 292 289 286 280 282 277 279	5.3	30 30 30 29 23 16	267 281 286 286 288 300	4.8 8.8 10.0 11.3 12.6 15.5 20.9 23.4	29 24 18 17 15 12 10	276 278 276 291 294 291 296	4. 4 6. 7 10. 3 13. 9 14. 8 19. 0 22. 2	22 21 18 18 15 13		2. 6 2. 6 5. 5 9. 3 9. 5	31 26 23 19 18	146 192 269 284 281 273 262 255 255 260	3.9 2.2 2.0 5.1 7.3 8.8	23	250 281	5.5	27 23 17 11		5.0 7.8 11.0 8.7	24 23	279 281 277 276	2. 3 4. 7 5. 4 11. 8 15. 1 17. 0 20. 7	26 19 15 12	269 234 246 251 274	2. 9 5. 5 6. 8 8. 6		305 284 286 301 297 299	1. 2 3. 1 4. 8 7. 8 11. 4 13. 0 16. 0 21. 6	30	266 273 283 284 289 290	12.0 11.4 14.0
Altitude		Ely, Nev. June (1,910 m.) Co				Grand Junction, Colo. (1,413 m.)  Greens- boro, N. C, (271 m.)				ro, N. C, Mont				ickso lle, I 16 m	la.		liet, 178 n		l	s Ver Nev 573 m	. ′	$R_0$	Littl ck, A 88 m	lrk.	١ ١	edfor Oreg 10 m	. '		iam Fla. Is m			Iobil Ala. 66 m		· /	shvi Fenn 94 m	ı. ´		w Y N. Y 15 m	. 1
(meters) m. s. l.	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	31 31 31 28 26 25 18	297 298	1. 4 2. 2 4. 2 9. 8 13. 3 15. 0 16. 0 18. 6 15. 7	31 31 31 31 26 21	346 269 249 265 292 293 290	0. 6 0. 7 2. 9 5. 6 9. 9 12. 7 13. 3	24 23 23 22 18 16 14 12	252 262 268 273 273 278 278 277	2. 6 5. 3	30 30 29 29 25 18	288	5. 8 10. 3 11. 2 12. 3 13. 2 15. 1	26 24 23 23 20 19 16 16 14	269 278 269	2. 2 3. 8 6. 7 8. 8 11. 0 11. 5 15 4 19. 3 20. 0	26 19 17 16	273 263 276 280	5. 2 5. 8 8. 6 11. 9	31 31	298 299 297 298 298 279	1.5 0.8 2.3 3.0 4.0 6.3	27 19 18 15 12 12 11	290 289 278 273 287	1. 4 4. 9 6. 4 9. 4 11. 8 12. 5 15. 8	21 21 21 20 			31 31 27	118 94 127 206 231 234 246 248 261 266		28 28 21 21 20 18 16 14 12	275 272 271	1. 0 2. 1 6. 0 9. 2 11. 0 12. 0 14. 2 17. 2 20. 2	13 12	246 269 280 282 285	0. 8 2. 1 6. 3 7. 6 11. 7 15. 6 17. 3	27 27 23 19 10 	291 280 299 306 294	5. 6 8. 0